Corporate Restructuring, Downsizing and Managerial Compensation

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Abstract

There is common consensus that managerial compensation is strongly tied to firm size and much less so to financial performance. One suspects that observed restructuring and downsizing in corporations in recent years may have an effect on these results. Based on multi-task theoretical considerations, our evidence for German industrial firms shows that pay for firm size elasticities decrease only for large firms as they change their strategy from growth to downsizing strategies. Furthermore, pay for performance elasticities are contrary to predictions of agency theory. Both results provide further support to the common belief that compensation contracts in public corporations seem imperfectly tied to firm performance and managers' tasks.

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1 Introduction

Managerial compensation has gained much attention across many disciplines and seems to be one of only a few examples of successful interdisciplinary research. In an extensive survey of the literature, Gomez-Mejia [5] reviews about 300 published empirical studies covering diverse fields such as economics, finance, accounting, human resource management, organizational behavior, sociology and psychology. One of the core results of many empirical studies is the low pay for financial performance sensitivity and the high pay for firm size sensitivity. These results seem to be very robust across different national samples, measures and estimation techniques. However, most studies are cross-section studies or consider only very short time periods and therefore provide no evidence on whether or not the seemingly robust results are transitory. Significant structural change either stochastic or intended may weaken or strengthen the results.

Only a few studies considered the stability of relationships between executive compensation, performance and firm size over time. One is Kostiuk [12] who studied two time periods (1934-39 and 1969-81) and concluded that the pay-size elasticity is relatively stable for American executives. Baker, Jensen and Murphy [1] show that the elasticity of American CEO compensation with respect to firm sales within the period 1973-83 has been remarkably stable across time and industries with the mean and median elasticity equal 0.31, whereby two-thirds of the estimates fall in the range of 0.275 to 0.35.

On the other hand, using a small sample of U.S. companies Boschen and Smith [3] studied the intertemporal response of pay to firm performance for the period 1948-90. They found that compensation schemes have shifted toward greater performance sensitivity over time with stronger long-term effects. They therefore conclude " ...that the pay-performance relationship has a significant long-run component and is incompletely characterized by its contemporaneous-only relationship..." (p. 578). Similarly, Joskow and Rose [10] observed an increase in pay for performance sensitivity during the 1980s by analyzing data for 1.009 CEOs in 678 firms between 1970-90. However, they also emphasized that the performance effect on compensation does not have a significant long-run component, it appears to decay substantially over two to three years. In contrast, Jensen and Murphy [9] by comparing CEO pay-performance sensitivity in 1934-38 versus 1974-86 observed that it "...has fallen by a factor of 10 over the past 50 years..." (p. 257).

This paper intends to analyze the stability of compensation related to the determinants firm size and performance in German manufacturing companies. The data set contains information from 48 firms for the period of 1968 to 1994. During this time period German firms have gone through distinc-

tive phases of restructuring as a reaction of actual or anticipated changes in external environments. The management of strategic change involves a series of distinct steps which include incentives for managers to transform the firm from the present state to the future state to maximize shareholders wealth. We assume that managerial compensation in terms of financial incentives depends on the specific task of restructuring and should be reflected in estimates of firm size and performance elasticities. Therefore, intertemporal shifts of incentive pay should be the result of strategic change of managers' tasks.

German manufacturing firms have gone through distinct phases of strategic change since the 1950s. As is illustrated in Schwalbach [16], the period 1950 to about 1980 shows significant firm growth while thereafter consolidation and downsizing dominated. Firm growth was realized in the 1950s and 60s due to internal growth via vertical integration and horizontal diversification. In the 1970s growth was performed due to mergers and acquisitions and led to diversification into related and unrelated fields. In the 1980s external diversification continued but firms started to concentrate their activities around their core business. In the late 1980s and 1990s firms divested unrelated businesses, globalized and outsourced activities. According to this development, one finds three distinct phases of strategic change: growth (1950-80), consolidation (1981-89) and downsizing (since about 1990).

Assuming potential conflict of interest between shareholders and managers, we expect that managerial incentives depend on the type of restructuring task. Conventional compensation packages in German firms -consisting of high base salaries, low accounting-based bonuses and no stock ownership- provide effective incentives for diversification, size and growth but not for adopting strategies of consolidation and downsizing. If shareholders are aware of the effectiveness of incentives, one expects that compensation packages are tied closer to shareholders wealth, particularly in phases of consolidation and downsizing. If compensation packages are incentive compatible, we expect trends of increasing pay-performance elasticities and decreasing pay-firm size elasticities across business activity phases.

Although there is ample evidence that compensation is tied to firm size and growth there is virtually no study which looks explicitly at the effect of restructuring and downsizing on executive pay. Press reports usually provide extreme examples about pay and downsizing like the case of British Gas where the CEO (Cedric H. Brown) was awarded a 76 percent pay increase in 1994 while at the same time the company was further downsized by 25.000 employees.[1] By now it is evident that many firms went or are going through

[1]See Business Week, July 3, 1994, p.41.

a phase of downsizing. Statistics show that 1.6 million jobs were eliminated in the American industrial sector between 1990 and 94. In Germany, one estimates about two million jobs lost during the period of 1992-95. The evidence about downsizing challenges the widely accepted result of strong size and weak performance effects on managerial compensation. In a detailed case study about General Dynamics Corporation, Dial and Murphy [13] demonstrate that compensation tied to shareholders' wealth create incentives to increase shareholder value even in industries where downsizing opens substantial opportunities for value creation. And more recently, the 1995 survey by Business Week showed increasing pay for performance sensitivity which is in part explained by stronger performance related incentives in periods of restructuring.[2] Furthermore, Dechow, Huson and Sloan [4] show that compensation is adjusted for restructuring charges to ensure that executives have the incentive to pursue value-enhancing strategies during phases of restructuring and downsizing.

The paper is structured as follows: In the next section we develop the hypothesis on the basis of agency theory. The specification of the empirical model is provided in section 3, followed by the data description. Section 5 presents the results and conclusions are given in the last section.

2 Theory and Hypothesis

Agency theory is applied to situations of modern corporations where shareholders (the principal) delegate work to managers (the agents). An agency problem arises if managers do not direct their work to serve the interests of shareholders. Managers can pursue conflicting goals if they can hide information, so that the shareholders cannot perfectly observe whether managers' actions will increase shareholders wealth. To avoid the agency problem, theory predicts that compensation contracts can be designed to provide managers incentives to take actions which increase shareholders wealth.

Holmstrom and Milgrom [7] proved that a simple linear compensation function of the kind $C(P) = a + bP$ would have the desirable incentives to behave in principals' interest, whereas a serves as a fixed and b as the incentive component depending on firm performance (P). Empirical estimates of the incentive parameter b show low values of elasticities of around 0.1-0.15 for the U.S., about 0.06 for Germany and about 0.01-0.02 for Japan.[3] There

[2]See Business Week, April 24, 1995, pp.88-94.

[3]See Rosen [14] for a review of the U.S. results, Schwalbach and Grasshoff [17] for Germany and Kato and Rockel [11] for Japan. Further evidence is reported in Barkema, Geroski and Schwalbach [2].

is disagreement about the desired magnitude of incentives, or as Rosen [14] states it "... what is not so clear from theory is what a reasonable benchmark would be. Is the 0.1-0.15 elasticity estimate too small or too large? The theory has not focused enough on that number to provide an answer ..." (p. 201).

Holmstrom and Milgrom [8] provide an answer to that open question by arguing that incentives provided should depend on the multi-task activities of executives. Specifically, they recommend considering the full portfolio of activities before predicting the strength of incentives applied to any given performance measure, since some dimensions of performance can lead to myopic behavior. For example, weak incentives invite executives to favor firm growth and size. If risk-taking (due to downsizing) is wanted incentives have to be stronger to minimize disincentives for downsizing.

Agency theory predicts that high fixed payments provide incentives to pursue growth strategies even if they create excess capacity and are not warranted by the capital market. Conventional compensation contracts include high fixed payment and therefore do not provide adequate incentives for downsizing. In practice, firm size and industry effects are the dominant determinants of pay levels. In German firms, about 30 percent of total compensation is variable and about 10 percent has long-term effects, on average. This means that 90 percent of compensation is short-term oriented whereas 60 percent is unrelated to short-term firm performance. Stock ownership by executives -although allowed by German company law (Aktiengesetz)- does not play a role in managerial compensation at all.[4]

Managerial compensation tied to firm size and short-run accounting profits is misleading if the task is to pursue restructuring and downsizing strategies. Downsizing involves exit from market segments associated with sales of plants or business units and plant closure. Furthermore, it requires laying off employees and increases restructuring charges, thereby affecting current accounting profits. It is obvious to see that incentives for restructuring and downsizing have to reflect long-run effects and measures which reflect the market value of the firm while growth strategies can also reflect short-run and accounting performance measures.

For German firms we identified three distinct phases of specific restructuring strategies: growth, consolidation and downsizing. We assume that managerial incentives are set in accordance with the required activities. Concentrating on measures of firm size and firm performance as determinants of executive compensation, we expect that parameter estimates should vary

[4]Recently companies like Daimler-Benz and Deutsche Bank are in the process of finding ways to reward executives with stock options.

across time and strategy. Before predicting the magnitude of parameter estimates one should take into account the interrelationship between pay-performance sensitivity and firm size.

Agency theory predicts that firm size and pay sensitivity are inversely related.[5] This is shown by supposing the aforementioned linear compensation function $C_t = a_t + bV_t$, where V_t is the firm value in period t, a_t is the fixed salary and b the share of firm value or incentive component. Then $\Delta C_t = \Delta a_t + b\Delta V_t = \Delta a_t + bV_t r_t$, where r_t is the rate of return and Δa is a time trend which usually is assumed to be constant. Incentives are assumed to be set optimally if $bV_t = const.$, then b is inversely proportional to firm size. Rosen [14] expects (based on the results of Jensen and Murphy [9]) that standard linear regressions underestimate the average pay-performance sensitivity by a factor of almost 10. He therefore recommends semi-elasticity estimates of the kind dlog(compensation)/dr for better control for size effects. And Holmstrom [6] prefers regressions like $C_t = a_t + bV_t/S_t$, where S_t is the size of the firm. In any case, both would like to see more empirical work identifying what the size/pay sensitivity relationship exactly is.

Combining single-task with multi-task agency theoretical considerations provides us with the tools to predict the magnitude of parameter estimates in regressions on managerial compensation. We expect that compensation contracts are task specific. Since task may change over time, compensation contracts should change accordingly. Restructuring strategies of growth, consolidation and downsizing are distinct from each other and incentives for executives have to be adjusted to them. Conventional compensation contracts, as mentioned above, provide incentives for sales or asset growth and firm size. In contrast, incentives for downsizing strategies have to be stronger and tied closer to the market value of the firm. Given the linear compensation function $C_{t,j} = \alpha_{t,j} + \beta_j P_{t,j} + \gamma_j S_{t,j}$, where the index j stands for the strategies ($j = 1$ for growth, $j = 2$ for consolidation and $j = 3$ for downsizing strategies) we expect that incentive parameter β, the firm size parameter γ and fixed payment α depend on strategy j . Specifically, we assume that $\beta_1 < \beta_2 < \beta_3$, $\alpha_1 > \alpha_2 > \alpha_3$ and $\gamma_1 > \gamma_2 > \gamma_3$ which means that incentives should be strongest and fixed payment be lowest during phases of downsizing. The size effect should be strongest in period of growth. Due to imperfect measurement, we expect variation of parameters within strategy period j but levels across j should be different than was predicted.

[5] See Jensen and Murphy [9] for empirical evidence and Holmstrom [6] for theoretical explanation. Schaefer [15] provides both theoretical and empirical evidence.

3 Model Specification

We follow the suggestion by Rosen [14] and adopt for different time groups (different strategies) $j = 0, 1, 2, 3$ the following models:

$$\ln C_{it,j} = \alpha_j + \lambda_{t,j} Z_{t,j} + \beta_j P_{it-1,j} + \gamma_j \ln S_{it-1,j} + \epsilon_{it,j} \tag{1}$$

for all $i = 1, ..., N$ and $t = 2, ..., T$. Index j reflects the firms' strategy as specified in the previous section. If $j = 0$, the model reflects contemporaneous compensation response independent of strategy. In all other cases parameters are assumed to reflect specific compensation schemes for growth ($j = 1$, periods $1969 - 1979$), consolidation ($j = 2$, periods $1970 - 1980$) and downsizing ($j = 3$, periods $1991 - 1994$) strategies. For given $j = 0, ..., 3$, $Z_{t,j}$ is a dummy variable with value one, if time point t belongs to the time group representing strategie j and zero otherwise.

The model assumes that the level of compensation ($C_{it,j}$) at firm i in time t is a semi-log-linear function of performance ($P_{it,j}$) and a log linear function of firm size ($S_{it,j}$) in the previous period $t-1$. The sensitivity parameters are β_j and γ_j whereas $\lambda_{t,j}$ are time deviation effects from the constant terms α_j within strategie (time group) j. The stochastic error terms are represented by $\epsilon_{it,j}$. The impact of the size effect is studied by using this model and splitting the firm sample in two parts, representing small and large firms. For $j = 1, 2, 3$ this leads to a fixed-effect model of the kind:

$$\ln C_{it,j} = \lambda_{t,j} + \pi'_{S,j} \cdot X_{it,j} \cdot D_{it,j} + \pi'_{L,j} \cdot X_{it,j} \cdot (1 - D_{it,j}) \tag{2}$$

$i = 1, ..., N$, $t = 2, ..., T_j$ where abbreviated $X_{it,j} := (1, P_{it-1,j}, \ln S_{it-1,j})'$. The dummy variables $D_{it,j}$ are defined as:

$$D_{it,j} = \begin{cases} 1 \text{ for } S_{it-1,j} \leq median(S_{it-1,j}) \\ 0 \text{ for otherwise} \end{cases}$$

The model parameters for small and large firms are represented by $\pi_{S,j} := (\alpha_{S,j}, \beta_{S,j}, \gamma_{S,j})'$ and $\pi_{L,j} := (\alpha_{L,j}, \beta_{L,j}, \gamma_{L,j})'$.

The models include time deviation effects $\lambda_{t,j}$ with the parametrization $\sum \lambda_{t,j} = 0$. Estimations for the parameter values are computed by OLS-routines imposing this restriction for each j. Based on the estimation results the hypotheses $\lambda_{2,j} = ... = \lambda_{T_j,j} = 0$ are tested by F-Tests. In order to detect differences between small and large firms we compute additional F-statistics for the hypotheses: $\pi_{S,j} = \pi_{L,j}$ for each $j = 1, 2, 3$. Finally we will see, whether there are differences between the different time groups (strategies) by considering the two hypotheses:

$$\pi_{S,1} = \pi_{S,2} \quad \pi_{L,1} = \pi_{L,2} \qquad \text{and} \qquad \pi_{S,2} = \pi_{S,3} \quad \pi_{L,2} = \pi_{L,3}$$

4 Data Description

The data set consists of 48 German industrial stock companies (Aktiengesellschaften) for which annual information is available for the period 1968 to 1994.[6] Annual executive compensation is known only for the management board as a whole. German company law requires neither individual compensation levels nor their components to be reported. Therefore, compensation can only be measured as average per capita income for the members of the management board (Vorstände) in firm i and year t. In our sample incomes vary between 50.000 and 457.700 German Marks at the beginning of the time series (in 1968) and between 80.000 and 1.833.333 German Marks in 1994 across firms. The annual growth rate of compensation was on average 6.5 percent. If one compares the average annual per capita income for the management board in our firm sample (690.708 German Marks) with the larger *Kienbaum* sample consisting of 904 German industrial firms (487.600 German Marks) in 1994 one observes that our sample is biased toward firms with higher income levels.[7]

As firm performance measures we use Tobin's q (market value/book value) and rate of return on stocks, alternatively. Firm size is measured as the number of employees and sales. The smallest firm in our sample employed 202 persons and the largest firm 185.000 persons in 1993. In the same year, sales varied between 25 Mio. and 55 Billion German Marks.

5 Results

Simple cross-section regressions of model (1) for each year reveal that the estimated parameters shift considerably over time. The coefficient of the constant term α_t fluctuates the least and shows a clear positive trend. The incentive parameter β_t fluctuates within the range of (-0.05, 0.4) until the year 1980 and levels off thereafter. However, most of the coefficients are statistically not significant. The firm size parameter γ_t varies between 0.18 and 0.28 and shows a positive trend until the year 1991 and drops significantly thereafter. This leads us to the first result that incentive and firm size parameters are remarkably unstable across time but show a medium to long-term trend which indicates that contemporaneous characterizations of compensation functions are incomplete.

Tables 1 to 3 summarize the results of fixed effects regression models (1) and (2). The data rejects the hypothesis of zero time deviation effects over

[6]We are grateful to the Science Center Berlin for providing some of the data.

[7]See Kienbaum Vergütungsberatung (1996), Vergütung 1994/95, Gummersbach.

the full time horizon ($j = 0$). The computed value of the F-statistic leads to a rejection of the hypothesis that $\lambda_2 = ... = \lambda_{T-1} = 0$. Furthermore, the periods 1969-79 (representing growth strategy, $j = 1$) and 1980-90 (representing consolidation strategy, $j = 2$) are statistically different while the period 1991-94 (representing the downsizing strategy, $j = 3$) are not statistically indistinguishable from the consolidation period. Additionally, F-tests reveal that the hypotheses of equal values of parameter estimates between small and large firms are rejected within strategies which indicates persistent size effects.

Individual parameter estimates illustrated in Tables 1 to 3 can be interpreted as follows: Estimates for the time series as a whole are in line with the widely observed result that pay for performance elasticities are much smaller than pay for firm size elasticities (see Table 1, last columns). Specifically, a one percentage point increase of the rate of return on stocks would effect compensation by an increase of about 0.07 percent. And a one percent increase of firm sales increases compensation by about 0.23 percent.

Parameter estimates change as one looks at strategy periods. Concentrating first on Table 1, pay for firm size elasticities remain about constant as one moves from growth to downsizing strategies which does not support our hypothesis that the commonly observed strong firm size effect can only be found for the pursuit of growth strategies. During periods of consolidation and in particular during downsizing management is not rewarded by reducing the firm size. In contrast, pay for performance effects are different. We observe in Table 1 estimates which point to the opposite of our hypotheses: Incentives are strongest during phases of growth and are weakest during downsizing. This is contrary to what agency theory recommends.

Turning to Tables 2 and 3, one observes remarkable differences between small and large firms. Pay for firm size elasticities do not vary as much across strategies in large firms but are on average higher in small firms. Interestingly, pay for firm sales elasticities drop during periods of downsizing only in large firms. This indicates that the management of small firms have less pressure to strategic change due to narrow diversified product portfolios and therefore reward management to keep the firm relatively small. In addition, pay for performance elasticities in small firms are generally higher than in large firms but are still in contrary to theoretical predictions but less so than in large firms. Over time, the effects of incentive pay in large firms disappear completely and indicate that managers in large firms are paid a fixed salary without any or only marginal incentive schemes.

6 Conclusions

Agency theory predicts that incentives to managers should be task specific. Since tasks may change over time, compensation contracts change accordingly. Incentives should be stronger the more risk-averse managers are and the more risky the task will be.

Standard principal-agent models and previous empirical studies did not consider the multi-task issue of management. We have identified three distinct tasks and estimated parameters for a standard log-linear compensation function. Based on a data set consisting of German industrial corporations, we find that incentives are set contrary to theoretical predictions. Although small firms deviate less from theory than large firms, it still supports the common consensus that compensation contracts in public corporations seem imperfectly tied to firm performance and managers' tasks.

The remarkable difference between small and large firms in particular in periods of downsizing suggests that strategic changes in large firms are more significant than in small firms. In addition, the results seem to support the aforementioned theoretical predictions by Holmstrom and Milgrom [8]. If managers' performance can only be measured incompletely, the optimal incentive contract can be to pay a fixed salary. Since tasks for managers in large firms have more dimensions than in small firms, it is more difficult to measure performance in large firms. This may explain why pay for performance elasticities in large firms are much lower than standard principal-agent theory predicts.

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Table 1: Results of Model (1)

Dependent Variable: LN(COMP)

Periods	1969-1979	1980-1990	1991-1994	1969-1994
CONST	3,2679*	3,8565*	4,1459*	3,6725*
	(0,0950)	(0,0734)	(0,1492)	(0,0557)
LN(EMPL)	0,2185*	0,2521*	0,2527*	0,2391*
	(0,0098)	(0,0079)	(0,0143)	(0,0058)
TOBQ	0,2393*	0,0431*	0,0939*	0,1103*
	(0,0328)	(0,0215)	(0,0400)	(0,0170)
N	528	528	192	1248
R^2	0,55	0,70	0,63	0,73

Periods	1969-1979	1980-1990	1991-1994	1969-1994
CONST	3,5249*	3,8118*	4,3538*	3,7731*
	(0,1137)	(0,0815)	(0,1187)	(0,0584)
LN(EMPL)	0,2171*	0,2508*	0,2404*	0,2353*
	(0,0103)	(0,0079)	(0,0145)	(0,0059)
STOCKS	0,0791	0,1014*	0,0366	0,0795*
	(0,0638)	(0,0443)	(0,0547)	(0,0311)
N	528	528	192	1248
R^2	0,50	0,70	0,62	0,72

Periods	1969-1979	1980-1990	1991-1994	1969-1994
CONST	3,8767*	4,4034*	4,5911*	4,2279*
	(0,0622)	(0,0535)	(0,1123)	(0,0386)
LN(SALES)	0,2211*	0,2367*	0,2397*	0,2318*
	(0,0081)	(0,0067)	(0,0119)	(0,0048)
TOBQ	0,1784*	0,0350	0,0888*	0,0867*
	(0,0295)	(0,0200)	(0,0363)	(0,0154)
N	528	528	192	1248
R^2	0,64	0,74	0,69	0,78

Periods	1969-1979	1980-1990	1991-1994	1969-1994
CONST	4,0060*	4,3456*	4,7687*	4,2808*
	(0,0814)	(0,0638)	(0,0878)	(0,0430)
LN(SALES)	0,2243*	0,2357*	0,2305*	0,2299*
	(0,0084)	(0,0066)	(0,0121)	(0,0048)
STOCKS	0,0918	0,0986*	0,0235	0,0744*
	(0,0564)	(0,0412)	(0,0501)	(0,0280)
N	528	528	192	1248
R^2	0,61	0,74	0,69	0,77

Standard errors in parentheses
* denotes significance at 5% level

Table 2: Results of Model (2)

Performance Measure: Tobin's q

Dependent Variable: LN(COMP)

Periods	1969-1979	1980-1990	1991-1994	1969-1994
CONST_S	3,9529* (0,2539)	3,3064* (0,1815)	3,4461* (0,3034)	3,4504* (0,1382)
CONST_L	3,5372* (0,1984)	4,1351* (0,1570)	4,6339* (0,2864)	3,9423* (0,1165)
LN(EMPL_S)	0,0911* (0,0365)	0,3100* (0,0267)	0,3302* (0,0430)	0,2443* (0,0200)
LN(EMPL_L)	0,2113* (0,0197)	0,2339* (0,0155)	0,2212* (0,0264)	0,2269* (0,0114)
TOBQ_S	0,3572* (0,0424)	0,1583* (0,0333)	0,2016* (0,0541)	0,2355* (0,0242)
TOBQ_L	0,1060* (0,0482)	-0,0346 (0,0262)	-0,0428 (0,0565)	0,0013 (0,0224)
SSE	66,039	47,315	18,472	137,710
N	528	528	192	1248
R^2	0,57	0,72	0,66	0,74

Periods	1969-1979	1980-1990	1991-1994	1969-1994
CONST_S	3,5106* (0,1344)	3,9161* (0,1130)	3,9101* (0,2082)	3,8945* (0,0761)
CONST_L	4,0636* (0,1283)	4,6668* (0,1084)	5,1368* (0,2190)	4,5144* (0,0770)
LN(SALES_S)	0,2848* (0,0326)	0,3207* (0,0233)	0,3488* (0,0370)	0,2769* (0,0163)
LN(SALES_L)	0,2187* (0,0162)	0,2128* (0,0123)	0,1940* (0,0214)	0,2107* (0,0088)
TOBQ_S	0,2498* (0,0402)	0,0929* (0,0320)	0,1564* (0,0489)	0,1711* (0,0226)
TOBQ_L	0,0478 (0,0439)	-0,0207 (0,0243)	-0,0288 (0,0516)	-0,0019 (0,0202)
SSE	54,090	40,936	15,092	112,923
N	528	528	192	1248
R^2	0,65	0,76	0,72	0,79

Standard errors in parentheses
* denotes significance at 5% level

Table 3: Results of Model (2)

Performance Measure:
Rate of Return on Stocks

Dependent Variable: LN(COMP)

Periods	1969-1979	1980-1990	1991-1994	1969-1994
CONST_S	4,2771*	3,2950*	3,6503*	3,6230*
	(0,2787)	(0,1945)	(0,3209)	(0,1481)
CONST_L	3,4557*	3,9773*	4,5266*	3,8730*
	(0,2289)	(0,1656)	(0,2506)	(0,1181)
LN(EMPL_S)	0,1131*	0,3197*	0,3323*	0,2565*
	(0,0388)	(0,0271)	(0,0445)	(0,0207)
LN(EMPL_L)	0,2139*	0,2371*	0,2218*	0,2252*
	(0,0210)	(0,0157)	(0,0284)	(0,0118)
STOCKS_S	0,0288	0,1546*	0,1219	0,0840
	(0,0736)	(0,0677)	(0,1140)	(0,0460)
STOCKS_L	0,1883*	0,0672	0,0319	0,0777*
	(0,0948)	(0,0518)	(0,0639)	(0,0380)
SSE	75,144	49,040	19,786	147,659
N	528	528	192	1248
R^2	0,51	0,71	0,64	0,72

Periods	1969-1979	1980-1990	1991-1994	1969-1994
CONST_S	3,5297*	3,8269*	4,0062*	3,8852*
	(0,1570)	(0,1309)	(0,2359)	(0,0904)
CONST_L	3,9497*	4,5230*	5,0442*	4,4406*
	(0,1495)	(0,1178)	(0,1683)	(0,0773)
LN(SALES_S)	0,3489*	0,3364*	0,3571*	0,3087*
	(0,0321)	(0,0227)	(0,0379)	(0,0161)
LN(SALES_L)	0,2201*	0,2157*	0,1952*	0,2092*
	(0,0167)	(0,0123)	(0,0211)	(0,0090)
STOCKS_S	0,0560	0,1307*	0,1194	0,1018*
	(0,0641)	(0,0637)	(0,1112)	(0,0426)
STOCKS_L	0,1604	0,0766	0,0322	0,0725*
	(0,0841)	(0,0471)	(0,0548)	(0,0333)
SSE	57,813	41,213	15,835	117,370
N	528	528	192	1248
R^2	0,62	0,75	0,71	0,78

Standard errors in parentheses
* denotes significance at 5% level